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Vitaliano

PATENT APPLICATION No. 10/661,465 Applicants: Franco Vitaliano and Gordana Vitaliano Amendments to the Claims

## Claims

- 1 1. (Original): A quantum information processing element comprising
- 2 a cage defining a cavity formed from a plurality of self-assembling protein molecules,
- 3 and
- 4 one or more cargo elements located within the cavity, wherein at least one of the cargo
- 5 elements comprises a qubit programmable into a plurality of logical states.
- 1 2. (Original): A quantum information processing element according to claim 1, comprising
- 2 receptors for capturing and positioning one or more cargo elements within the cavity.
- 1 3. (Original): A quantum information processing element according to claim 2, comprising
- 2 a vesicle located within the cage and enclosing one or more cargo elements, wherein the
- 3 receptors extend through the vesicle to capture and position a cargo element within the vesicle.
- 4. (Original): A quantum information processing element according to claim 3, comprising
- 2 adaptors disposed between the receptors and the cage and binding to the receptors.
- 1 5. (Original): A quantum information processing element according to claim 1, comprising
- 2 a vesicle located within the cage and enclosing the one or more cargo elements.
- 1 6. (Original): A quantum information processing element according to claim 1, comprising PAGE 3/3 \* RCVD AT 3/24/2006 3:18:27 PM [Eastern Standard Time] \* SVR:USPTO-EFXRF-1/12 \* DNIS:2738300 \* CSID:617 248 8886 \* DURATION (mm-ss):01-26